

Amendments to the Specification:

Abstract

The invention provides processes for a process of generating transgenic plants or plant cells transformed on their plastome, comprising introducing into plant plastids a first DNA molecule and a second DNA molecule, wherein ~~said the~~ first DNA molecule contains a first region homologous to a region of the plastome for directing plastome integration and a first sequence of interest, and ~~said the~~ second DNA molecule contains a second region homologous to a region of the plastome for directing plastome integration and a second sequence of interest, whereby a sequence segment of ~~said the~~ first sequence of interest is homologous to a sequence segment of ~~said the~~ second sequence of interest, and selecting transformants having an integration sequence stably integrated in the plastome, whereby ~~said the~~ integration sequence contains at least a portion of ~~said the~~ first and ~~at least a portion of said~~ second sequences of interest as a continuous sequence. The invention further provides plant cells, plants, and seeds of plants produced by such processes.